

COMPARATIVE STUDY OF EFFECT OF CASING MATERIAL ON THE PRODUCTION OF MILKY MUSHROOM STRAINS, APK-2 AND CI-9

Ashish Kumar*, Gopal Singh and Prashant Mishra

Department of Plant Pathology, SVPUA&T, Modipuram, Meerut

Received-01.10.2019, Revised-22.10.2019

Abstract: The study was undertaken to assess the effect of different casing ratio and thickness on yield parameters of both strains APK-2 and CI-9. Casing material consisting of Farm yard manure, Garden soil and Vermi Compost were tried with different ratio 3:2:1, 3:2:2 and 3:2:3. The casing ratio 3:2:1 resulted best for NOPF (11.67 and 12.67 days) and first harvesting (18.33 and 20.33 days) in strains APK-2 and CI-9 respectively. Maximum NOPF (58.67 and 60.33 per bag), NOFB (20.67 and 22.33 per bag) were showed in casing ratio 3:2:1 for both the strains APK-2 and CI-9. Maximum yield was harvested in casing ratio 3:2:3, 574.33 and 599.33 g/kg of dry substrate with 47.86 % and 49.94 % B.E., in strains APK-2 and CI-9, respectively. The casing thickness 1.25cm took least time to for pinhead formation (13.00 and 14.00 days) and for first harvesting (21.67 and 20.67 days), in strains APK-2 and CI-9, respectively. Also the casing thickness 1.25 resulted in maximum number of fruiting bodies harvested from (20.00 and 21.33) and maximum yield 619.67 and 636.33 g/kg of dry substrate with 51.63 % and 53.02 % B.E., from APK-2 and CI-9, respectively.

Keywords: Mushroom, Production, Crop, Laboratory

REFERENCES

- Amin, R., Khair, A., Alam, N. and Lee, T.S.** (2010). Effect of Different Substrates and Casing Materials on the Growth and Yield of *Calocybe indica*. *Mycobiology*, **38** : 97-101.
- Eger, G.** (1961). Under suchungen uber die funktion der Deck scichl bei der fruch korper bilding des kulturchampignons, *Psalliotia bisporus* Lge. *Archive Fur Microbiol.*, **39**:313-314.
- Kumar, R. Singh, G. Mishra, P. and Singh, R.** (2012). Effect of different organic supplements and casing mixtures on yield of two strains of milky mushroom (*Calocybe indica*). *Indian phytopathology*. **65**(4): 399-403.
- Lambert, E. B. and Humfeld, H.** (1939). Mushroom casing soil in relation to yield. *U. S. Department of Agriculture, Circular No.509*. Washington, DC. pp.11.
- Lambert, E.B.** (1933). Effect of excess of carbon dioxide on growing mushrooms. *J. Agric. Res.*, **47**: 509-608.
- Pani, B.K.** (2012). Sporophore production of milky mushroom (*Calocybe indica*) as influenced by depth and time of casing. *International Journal of Advanced Biological Research*. **2**(1):168-170.
- Shukla, C.S.** (2003). Role of agronomical and biochemical parameters on growth and yield of *Calocybe indica* (P&C), Ph. D. thesis, IGAU, Raipur, pp.168.
- Shukla, P.K.** (2007). Effect of casing soil thickness on crop duration and yield of milky mushroom (*Calocybe indica* P&C). *Indian Phytopath.*, **60**(4):537-539.
- Singh, V.P.** (2012). Studies on spawn qualities and management of diseases of Milky mushroom (*Calocybe indica*). Ph. D. thesis, Department of Plant Pathology, SVPUA&T, Meerut.
- T.R. Shandilya** (2002). "Indian Mushroom Conference", TNAU, Coimbatore.

*Corresponding Author